

Application No.: 10/763,391

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AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

Claim 1 (currently amended): A sheet handling apparatus comprising:

a transport path that transports sheets to or from a deposit/drawal part

a detection part that detects a characteristic of a sheet transported by ~~[[a]]~~ the transport path ~~module~~,

an amplifier that amplifies a signal obtained from the detection part;

an A/D converter that converts an analog signal amplified in~~[[;]]~~ the amplifier to a digital signal;

determining means that determine the truth of the sheet by use of ~~[[a]]~~ the signal having been produced as a result of A/D~~[[.]]~~ conversion by the A/D converter in reference to predetermined conditions; and

a control part that changes signal read accuracy of the detection part according to a result of determining the truth of the sheet in the determining means,

wherein, if the sheet is determined as unidentified as ~~[[a]]~~ the result of determining the truth of the sheet in the determining means, the control part changes a setting of conditions so that a ~~capability~~ an accuracy to determine the sheet ~~[[is]]~~ becomes higher ~~[[than]]~~ when the sheet was determined as unidentified, and transports through the transport path an unidentified sheet determined as unidentified to the detection part ~~so that~~ and performs the truth determination again under the changed conditions in the determining means.

Claim 2 (Currently amended): The sheet handling apparatus according to claim 1, wherein the control part changes an amplification factor of the amplifier as the setting conditions.

Claim 3 (Currently amended): The sheet handling apparatus according to claim 1, wherein the control part changes the amplification factor of the amplifier correspondingly to denominations as the setting conditions.

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Claim 4 (Currently amended): The sheet handling apparatus according to claim 1, wherein the control part changes an range between an input upper limit value and an input lower limit value of the A/D converter as the setting conditions.

Claim 5 (original): The sheet handling apparatus according to claim 3, wherein the control part sets conditions so as to narrow the range between the upper limit value and the lower limit value of the A/D converter.

Claim 6 (original): The sheet handling apparatus according to claim 1, wherein sheets determined as unidentified by the determining means include sheets in which characteristics indispensable to true bills were detected but which exceed a permissible error.

Claim 7 (Currently amended): A method of determining bills for improving capacity of determination of bills in a bill handling apparatus, comprising the steps of:
 sending transporting though a transport path a bill to be deposited to a determining part of the bill handling apparatus to perform determination;
 detecting characteristics of the bill by a detection part of the bill handling apparatus;
 processing a signal from the detection part and determining a denomination and truth of the bill in a determination part of the bill handling apparatus;
 as a result of the truth determination, classifying the bill into one of at least four types of bills to process the bill, the four types of bills being true bills determined as true, false bills lacking characteristics indispensable to true bills, unidentified bills having characteristics indispensable to true bills but exceeding a permissible error thereof, and undefined bills the denominations of which cannot be determined;
 if the bill is determined as an unidentified bill, changing an amplification factor or resolution of the detection part so as to increase accuracy to determine the bill; and
 after the change, sending transporting the unidentified bill through the transport path to the detection part again to detect the characteristics of the bill to perform the truth determination under changed conditions of the amplification factor or resolution of the detection part in the determining part means.

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Claim 8 (Previously presented): The determination processing method according to claim 7, wherein the changing step changes an input range of the A/D converter.

Claim 9 (Currently amended): The determination processing method according to claim 7, wherein, as a result of the truth determination, an undefined bill is returned through the transport path to a user, a bill determined as an unidentified bill and a bill determined as a false bill in another determination are stored in a storing chamber of the bill handling apparatus the machine, and a bill determined as an undefined bill in yet another determination is returned through the transport path to the user.

Claim 10 (Currently amended): A sheet handling apparatus, comprising:
a transport path that transports sheets to or from a deposit/drawal part;
a determining part that determines the truth of sheets transported by [[a]] the transport path module;
a control part that changes accuracy to determine the sheets in the determining part; and
a stocking part that temporary holds sheets determined as unidentified in the determining part,
wherein, if the sheets are determined as unidentified in the determining part, the control part changes a determination condition so as to increase the determination accuracy of the determining part, and transports through the transport path the sheets determined as unidentified from the stacking part to the determining part again to determine the truth of the sheets under a changed condition of the accuracy in the determining part means.

Claim 11 (Currently amended): The sheet handling apparatus according to claim 10, wherein the determining part comprises: a detector that detects a characteristic of a sheet, an amplifier that amplifies a signal obtained from the detector, an A/D converter that converts an analog signal amplified in the amplifier to a digital signal; and determining means that determine the truth of the sheets by use of a signal produced as a result of A/D conversion by the A/D converter,

wherein, if the sheet is determined as unidentified in the determining part, the control part changes signal read accuracy of the detector so as to increase a capability to determine the sheet,

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and transports the sheet determined as unidentified to the detector to again determine the truth of the sheet in the determining part means.

Claim 12 (original): The sheet handling apparatus according to claim 10, wherein the sheet handling apparatus includes a storing part that stores contents of sheet transactions by users, and stores information about sheets determined as false bills or unidentified bills as a result of another determination by the determining part in the storing part in association with information capable of identifying the users.

Claim 13 (Currently amended): The sheet handling apparatus according to claim 12, including a storing chamber for storing the false bills or unidentified bills in ~~the machine~~ the sheet handling apparatus without returning them to the users.

Claim 14 (Currently amended): The sheet handling apparatus according to claim 11, wherein the control part changes an amplification factor of the amplifier as the change of the determination condition.

Claim 15 (Currently amended): The sheet handling apparatus according to claim 11, wherein the control part changes an input range of the A/D converter as the change of the determination condition.

Claim 16 (Currently amended): A method of determining bills in a bill handling apparatus, comprising:

transporting bills to be deposited through a transport path to ~~[[an]]~~ a determining part of the bill handling apparatus to perform determination;

a first determination mode in which denominations and truth of the bills are determined with first determination accuracy in the determining part;

setting second determination accuracy as higher bill determination accuracy than the first determination accuracy if a bill is determined as an unidentified bill as a result of determination in the first determination mode;

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a second determination mode in which a bill determined as unidentified as a result of the first determination is automatically determined again in the same determining part set at the second determination accuracy without being handled by a customer; and

processing bills determined as unidentified or false bills as a result of determination in the second determination mode separately from other bills.

Claim 17 (original): The method of determining bills according to claim 16, wherein the first determination mode includes the steps of:

detecting the characteristics of the bills by a detector; and
processing a signal from the detector to determine the truth of the bills.

Claim 18 (original): The method of determining bills according to claim 16, setting accuracy so as to increase the amplification factor or resolution of the detector for detecting the characteristics of the bills in the second determination mode.

Claim 19 (original): The method of determining bills according to claim 16, including the step of storing information about sheets determined as false bills or unidentified bills in the second determination mode in a storing part in association with information capable of identifying users of the bills.

Claim 20 (original): The method of determining bills according to claim 16, further including the step of having users confirm an inputted amount if a bill is determined as an unidentified bill as a result of determining the bill in the first determination mode.